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ABSTRACT

Differences between the traditional college-age students and adults enrolled in credit courses in degree and non-degree programs at a public southeast, urban university were studied. Surveys were sent to 433 non-degree-seeking students enrolled in credit courses, 441 traditional college-age degree-seeking students, and 429 degree-seeking students 24 years old and older. The return rates for these groups were 46 percent, 55 percent, and 72 percent, respectively. Attention was focused on the following areas of potential differences: demographics, sources of funds used to meet college costs, reasons for continuing education, and reasons for selecting the university. Implications of the differences in the student groups were considered with attention to college marketing, retention, and curriculum policies, as well as educational and student services offered. While adult students sought colleges with qualified faculty, a wide range of academic programs, and low tuition, barriers to their college attendance included the cost of attending college and the conflict between responsibilities of job, home, and college. The availability of courses as well as the time the courses were offered were two large institutional barriers for adult students. (Author/SW)

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ANDRAGOGY IN PUBLIC UNIVERSITIES: UNDERSTANDING ADULT EDUCATION NEEDS IN THE 1980'S

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This paper was presented at the Twenty-Fourth Annual Forum of the Association for Institutional Research held at the Hyatt-Regency in Fort Worth, Texas, May 6-9, 1984. This paper was reviewed by the AIR Forum Publications Committee and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC Collection of Forum papers.

Daniel R. Coleman, Chairman
Forum Publication
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ABSTRACT

The purpose of this study was to determine how degree and nondegree-seeking adults, enrolled in credit courses at a public university, differ from the traditional college age students. Based upon responses from a survey (response rate of 57%), four specific areas of potential differences were investigated: (1) demographics; (2) sources of funds used to support college costs; (3) importance of reasons for continuing education; and (4) importance of reasons for selecting the university. Implications of such differences on a college's marketing, retention, and curriculum policies, as well as the educational and student services offered are addressed.

ANDRAGOGY IN PUBLIC UNIVERSITIES: UNDERSTANLING ADULT EDUCATION NEEDS IN THE 1980'S

The anticipated decline in the number of high school graduates during the 1980's has been well documented. Many (Harrington, 1977; Kreitlow & Associates, 1981) have postulated that the anticipated decline in college enrollment may be offset by increases in the enrollment of older students. Indeed, the survival and growth of many institutions may well depend on how effective they are in attracting and retaining the adult student. Thus, a better understanding of the educational needs of adult students and how they differ from the traditional college age student will be critical in attracting and retaining these students.

The literature on adult students has not only increased in the last several years, but has shifted in focus. In the past, adult education or "andragogy" (Knowles, 1970) was often interpreted to mean continuing education, extension education, or instruction at community colleges or technical institutes. Seldom was adult education for academic credit thought to apply to four-year colleges (Cross, 1981). As such, literature on the subject of adult students in colleges and university was rather miniscule. This study seeks to expand the current knowledge of adult students by looking at how degree and nondegree-seeking adults enrolled in college courses for credit differ from the traditional college age students.

An examination of the various studies that have been published reveals substantial differences between the adult students and traditional college age students. In terms of demographics, women constitute the fastest growing segment of the adult education movement. Solmon and Gordon (1981) and Fisher-Thompson and Kuhn

(1981) found more adult women than men enrolled in post-secondary institutions. The adult women tend to be older than adult male students and are more likely to move at a slower academic pace than their male counterparts (Mishler, et al., 1981).

Cross (1981) has indicated that there are also socioeconomic differences between the older and traditional students. Typically, degree-seeking adults come from working-class backgrounds and are for the most part first-generation college students. Parents of traditional college age students tend to be better educated. However, adult students tend to be better educated and hold better jobs than their peers in the general population (Shipp and McKenzie, 1981).

Stable patterns have also been identified with respect to the reasons adults continue their education and how their educational reasons differ from those of their younger counterparts. Houle (1961) and Cross (1979) found several common motivations of adult learners: (1) goal-oriented objectives--learning to gain specific objectives; (2) activity-orientied objectives--participating in learning activities primarily for the sake of the activity itself rather than to develop a skill or learn subject matter; and (3) learning-oriented objectives--pursuing learning for its own sake.

Solmon and Gordon (1981) and Morstain and Smart (1974) found other numerous differences between the adult and traditional students in their reasons for attending college. The adult students more often than the traditional students indicated the desire to live at home, the special educational programs offered at the institution, the low tuition, and the availability of financial aid as being more important in their selection of college. Traditional students were also more concerned about the academic reputation of the college than their older counterpart.

In addition to demographic and motivational differences, adult and traditional college age students differ in many other respects. In terms of financing their college education, older students were more apt to work full-time, to use their GI benefits, and rely on their spouses. The younger traditional students, on the other hand, tended to use their personal savings, summer work, and support from their parents to pay for college (Solmon and Gordon, 1981).

As can be seen, there are numerous differences between the traditional college age student and the older student. There are, however, severe problems in generalizing from the literature due to the diversity and biased samples in the many different studies, as indicated by the authors themselves.

The results from this study seeks to expand the literature on andragogy. Past research has, typically, considered only the dichotomy between traditional and adult students. The work presented here makes a finer distinction in that it compares and contrasts degree-seeking traditional and adult students, along with nondegree-seeking students who are enrolled for academic credit.

METHODOLOGY

The data collected for this study was obtained from a small (N=2700 students), comprehensive public university located in an urban setting in the southeast. Prior to 1978, the university offered degrees in only the traditional liberal arts fields. At that time, the university expanded its mission to be more responsive to local community needs. Several nontraditional liberal arts degrees (e.g., computer science, management) were established. Also, the university expanded its admission policy to admit adult students on a nondegree (unclassified) status. These students could take up to

eight hours credit per semester with a cumulative maximum of 24 credit hours.

This university having a diverse student body is in a unique position to study the differences between the older and traditional college age students. First, approximately 20% of the student body are unclassified or nondegree-seeking students. Counting visiting students and students with special admission, 33% are nondegree-seeking. The average age of the student body is 27 years. Almost one half of the degree-seeking students are over 24 years of age, and the average age of the unclassified students is 34 years. Also, 45% of the student body are part-time students. The average age of the part-time students is 32 years, while the average age of the full-time students is 22 years. A further unique aspect of the campus is that 86% of the student body reside within the home county or contiguous counties of the campus. On-campus housing can accomodate only 16% of the student body. Although the strong commuter aspect of the campus suggests that student aptitude may be low, the average SAT scores of first-time freshmen rank among the highest of public universities in the state.

Data for this study was obtained from a survey sent to all unclassified (nondegree-seeking) students enrolled in credit courses (N=433), to a random sample of traditional college age degree-seeking students 18-24 year old students (N=441), and to a random sample of degree-seeking students 24 years of age and older (N=429). The return rates for the respective groups were 46%, 55%, and 72%. The overall response rate to the survey was 57%.

The survey was broad in scope and consisted of four sections: (1) demographics (e.g., marital status, residence); (2) reasons for obtaining a higher education and selection of college (e.g, sources

of information about the university and decisions to attend this particular university); (3) information about present status at the university (e.g., major, hours studying per week, financing of college costs, employment); and (4) perceptions about various aspects of the university (e.g., satisfaction, quality of instruction, level of difficulty of major program).

Differences between the traditional degree-seeking, older degree-seeking, and nondegree-seeking students were analyzed by multivariate (discriminant) analyses and chi-squares when appropriate. Multivariate analyses were conducted due to the fact that univariate analyses assume independent relationships between the variables and would distort the true interpretations of group differences (Cohen and Cohen, 1975). The areas of investigation were limited to demographics, support of college costs, reasons for pursuing education, and reasons for selecting this univeristy.

RESULTS

Demographics

The first area to be investigated was the background and demographic characteristics of the traditional, older degree-seeking, and nondegree-seeking students. Significant differences (λ=.834; χ^2=99.5; $p<.001$) were found between the groups on selected demographic items. The standardized discriminant weights for these demographic items are presented in Table 1. The first discriminant function revealed that traditional college students tended to be employed in occupations associated with lower socio-economic status (Nam, et al., 1973) and to have fewer children than older and nondegree-seeking students. This result would be expected given the younger age and marital status (90% single) of the traditional students, and the type

Table I

Discriminant Analysis Results on Demographic Items for Traditional and Older Degree-Seeking Students and Nondegree-Seeking Students

	Standardized Discriminant Weights	
Item	Function 1	Function 2
Occupational Status Code	.86	.26
Number of Children	.37	-.42
Year of First Attendance at University	-.04	.75
Commuting Time to Campus	-.05	-.56
Place of Residence from Campus	.08	.46
Parents Occupational Status Code	.00	.30
Hours Employed Per Week	-.05	.16
	Group Centroids	
Traditional Degree-Seeking Students	-1.14	.08
Older Degree-Seeking Students	.33	-.45
Nondegree-Seeking Students	.51	.59
Canonical Correlation	.57	.41

of part-time employment they use to support their way through college (i.e, service capacity functions such as workers in fast-food restaurants).

The second discriminant function separated the older degree-seeking students from the nondegree-seeking students. Here, the older students were found to have more children (47% had at least one dependent child), and live closer to campus but have a longer commuting time than the nondegree-seeking students. The older students were also found to have enrolled at the university earlier (an average of one year earlier) than the nondegree-seeking students.

One other major significant difference (χ^2=243.9; p<.001) worth noting was the marital status of the three groups. Approximately 15% of the older students indicated their marital status to be separated or divorced, compared to less than 5% for the traditional or nondegree-seeking students. Divorced women may be seeking to raise their occupational skills and/or remake their lives.

It was interesting to note that the discriminant analysis did not reveal any major difference between the three groups with respect to the number of hours employed each week. Approximately 65% of the traditional students and over 70% of the older and nondegree-seeking students were employed while attending the university. The high percentage of traditional students who worked while attending the university may be institution-specific. No significant differences were found between the groups with regard to race or sex. The average of the nondegree-seeking students was 34 years, while the average age of the older degree-seeking students was 32 years.

College Costs

An analysis of the means by which the three groups supported their college costs revealed several interesting patterns.

Significant differences (λ=.876; χ^2=79.9; p<.001) were identified between the three groups; the results of discriminant analysis are presented in Table 2. The first significant function indicated that traditional students tended to rely more upon their parents and student aid to support their college costs than the older and nondegree-seeking students.

The second function, however, suggested that older degree-seeking students tended to rely more upon their spouses, student aid, and veteran's benefits than the nondegree-seeking student. An inspection of the group statistics indicated that 70% of the nondegree-seeking students, 53% of the older students, and 30% of the traditional students supported their college costs from their own income. In all, 89% of all college costs for nondegree-seeking students were supported by self, spouse, or parents. This compares to approximately 70% for the degree-seeking students both traditional and older.

Reasons for Continuing Education

The respondents were asked to rate on a five-point scale (1-very important to 5-not at all important) the importance of various reasons for continuing their education. Significant differences (λ=.899; χ^2=59.5; p<.001) were obtained between the three groups. The results of the discriminant analysis presented in Table 3 reveal that traditional students tended to place more importance on the participation in the social life of the campus and on the uncertainty of their future plans in their decision to continue their education than did older or nondegree-seeking students. The latter groups tended to rate the studying of new and different subjects as being more important.

The second discriminant function suggested that the older degree-seeking students placed more importance on increasing their earning power and qualifying for a higher level occupation than did

Table II

Discriminant Analysis Results on Sources of Funds Used to Support College Costs for Traditional and Older Degree-Seeking Students and Nondegree-Seeking Students

	Standardized Discriminant Weights	
Item	Function 1	Function 2
Percent of College Costs Supported by:		
Parents	.86	-.05
Student Aid	.50	.62
Veteran's Benefits	-.17	.67
Spouse	-.11	.41
Social Security Benefits	.08	-.21
Self	-.15	-.15
	Group Centroids	
Traditional Degree-Seeking Students	1.01	.06
Older Degree-Seeking Students	-.45	.33
Nondegree-Seeking Students	-.30	-.56
Canonical Correlation	.54	.35

Table III

Discriminant Analysis Results on the Importance of Various Reasons for Continuing Education for Traditional and Older Degree-Seeking Students and Nondegree-Seeking Students

	Standardized Discriminant Weights	
Item	Function 1	Function 2
Participate in Social Life at College	.68	-.55
Study New and Different Subjects	-.67	.23
Unsure of Future Plans	.45	.26
Increase Earning Power	-.08	.64
Qualify for Higher Level Occupation	.13	.29
Expectations of Others	.14	.13
Become a Better-Educated Person	.05	-.13
Meet New and Interesting People	.03	.14
	Group Centroids	
Traditional Degree-Seeking Students	-.76	-.06
Older Degree-Seeking Students	.46	-.32
Nondegree-Seeking Students	.29	.51
Canonical Correlation	.48	.32

the nondegree-seeking students. The nondegree-seeking students, however, rated participation in the social life of the campus as being more important.

Each group expressed the desire to become a better educated person as the most important reason for continuing their education. This, along with other descriptive statistics, supports Houle's typology, that the traditional and older degree-seeking students tended to emphasize goal-oriented objectives, while the nondegree-seeking students tended to emphasize learning-oriented objectives. Activity-oriented objectives were not found to be of major importance.

Significant differences (χ^2=181.1; p<.001) were also identified between the three groups with respect to the type of educational institution last attended. As noted in Table 4, over 50% of the traditional students were enrolled in high school prior to enrolling at the university, compared to 16% for the nondegree-seeking students. Approximately 40% of the older students were enrolled in junior colleges, community colleges, or technical institutes, while almost 50% of the nondegree-seeking students were enrolled at four-year public institutions before coming to the present university. On the average, the older degree-seeking students last attended an educational institution nine years before enrolling at the current university, compared to ten years for the nondegree-seeking students.

Reasons for Selecting the University

The reasons students chose to attend this particular university also proved to be significantly different (λ=.904; χ^2=59.4; p<.001) for the three groups. The first discriminant function, as shown in Table 5, suggested that the traditional students tended to place more importance on the availability of financial aid, the academic repu-

Table IV

Type of Previous Educational Institution Attended Prior to Enrolling at University by Traditional and Older Degree-Seeking and Nondegree-Seeking Students

Institution	Traditional College Age	Older Degree-Seeking	Nondegree Seeking	Average
High School	52.2%	6.0%	15.5%	22.3%
In-State Public Universities	13.1%	20.8%	20.0%	18.9%
Out-of-State Public Universities	2.1%	17.0%	28.6%	16.2%
Private Senior Colleges	11.8%	15.5%	17.3%	14.9%
Junior Colleges	3.2%	7.4%	0.0%	3.9%
Community College/ Technical Institutes	16.1%	31.8%	18.3%	23.2%

Table V

Discriminant Analysis Results on the Importance of Reasons for Selecting the University for Traditional and Older Degree-Seeking Students and Nondegree-Seeking Students

	Standardized Discriminant Weights	
Item	Function 1	Function 2
Availability of Academic Programs	-.44	.21
Availability of Financial Aid	.40	-.55
Academic Reputation of University	.38	.10
Quality of Faculty	-.35	.19
Size of University	.35	-.16
Preference of Family	.32	.31
Social Climate/Activities at College	.20	.48
Friends Attending the University	-.22	.39
Cost of Attending the University	.13	-.32
Career Preparation Opportunities	.02	-.28
Attractive Campus	.17	.19
Location of University	-.11	-.19
Admissions Office Contacts/Literature	-.01	-.16
	Group Centroids	
Traditional Degree-Seeking Students	-.87	-.12
Older Degree-Seeking Students	.25	.37
Nondegree-Seeking Students	.61	-.40
Canonical Correlation	.52	.31

tation of the university, the size of the university, and the preference of family members in their decision to attend the university than did the older and nondegree-seeking students. The latter groups, on the other hand, tended to place more importance on the availability of the academic programs and the quality of faculty in their selection of a university when compared to the traditional students.

The second discriminant function separated the older degree-seeking students from the nondegree-seeking students. Here, the older students seemed to view the availability of financial aid, the cost of attending the university, and career preparation opportunities as being more important than did the nondegree-seeking students. In contrast, the nondegree-seeking students seemed to stress, more than the older students, the social climate/activities offered at the university, friends attending the university, and the preference of family members as factors influencing their decision to attend the university.

No significant differences were found between the groups with respect to the type of other institutions they applied to at the time they sought admission to this university and the type of institution they would have chosen to attend had they not enrolled at the present university. Significant differences (χ^2=82.5; p<.001) were found, however, between the groups in terms of their declared academic major or area of concentration. Between 20% and 30% of each group indicated their major or area of concentraton to be business. Over 20% of the nondegree-seeking students indicated their area of concentration to be in the fine arts, while only 5-7% of the traditional and older degree-seeking students expressed this particular discipline. A similar pattern was found for the computer science area. A noticeably higher percentage of older students

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expressed the natural/biological sciences and humanities to be their major or area of concentration when compared to the traditional and nondegree-seeking students. The only areas in which the traditional students had a noticeably higher percentage of majors were in the health and engineering fields.

The final major differences (χ^2=244.2; χ^2=32.0; $p<.001$) between the three groups were the number of hours spent studying per week and the location of the studying. The older students studied more hours per week than the nondegree-seeking students (an average of 15 hours per week for older students and 8 hours per week for nondegree-seeking students). When controlling for the number of credit hours enrolled, significant differences ($p<.001$) were again found between the three groups in terms of the number of hours devoted to studying. Older degree-seeking students studied more hours per week per credit hour than nondegree-seeking students, who in turn studied more hours per week than the traditional students.

Almost all of the older degree-seeking students and nondegree-seeking students studied at their place of residence. Only two-thirds of the traditional students studied in this location. An additional 25% of the traditional students studied in the library (20%) or in other campus buildings (5%).

DISCUSSION

The expanded function and importance of adult education, andragogy, during the next decade has been widely reported in the literature (Aslanian and Brickell, 1980). It is safe to say that public colleges and universities will not be immune from community and legislative pressures to expand its offerings for adult learners. One aspect of adult education that public universities can readily

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expand upon is the enrollment of adult students, be they degree-seeking or nondegree-seeking, in academic courses for credit.

There are many reasons why the enrollment of adult students will be benefical to all concerned parties. First, the declining numbers of high school graduates will force colleges to actively compete for available high shcool graduates. Not all colleges will be successful in this endeavor. Satellite campuses of major universities and small, less prestigious private colleges have been identified (Apps, 1981) as potential targets for declining enrollments. Public colleges and universities which are funded by enrollment-driven budgets may find the adult students as a buffer from major retrenchment activities.

Second, the aging of America, increased leisure time, boredom, and the desire to learn or to do something new may cause many adults to seek admission to universities. An appropriate marketing strategy geared to the older student should yield very productive results.

The third reason for potential increases in adult college participation rates has to do with the changing roles of men and women in society. Postponement of marriage, increases in the number of women in the workforce, higher divorce rates, unemployment, spouses returning to college after postponing their education all serve as motives for adults to seek colleges as activity-oriented objectives.

The final major reason for increases in college participation rates is related to the changes in technology and business operations. More and more adults will need to update or refresh their current skills, while others will need to learn entirely new skills. This goal-oriented emphasis will continue to tax many "popular" programs such as computer science, business, engineering, and the health professions. Marketing of programs to meet the goal-oriented

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objectives of adult students is relatively easy. Many cooperative ventures could be established with local industries and businesses.

The reasons adults select a particular college have implications for colleges seeking to expand their programs for the adult population. If the results of this study can be generalized, universities in urban settings with comparatively low tuitions, having a strong faculty, and offering a wide variety of academic programs and social activities will be in a better position to attract adult students than institutions lacking these qualities.

Having the available programs, qualified faculty, and low tuition will not automatically guarantee that an institution will be effective in recruiting adult students. This study has identified several potential barriers that could discourage adult participation in college. Cross (1981) has suggested three major types of barriers: situational barriers--those arising from one's situation in life at a given time; institutional barriers--those arising from college practices or procedures that exclude or discourage adults from attending college; and dispositional barriers--those related to attitudes and self-perceptions about oneself as a learner.

As indicated by how our adult students support their college costs, the cost of attending college is a major situational barrier. Another important situational barrier involves the conflict between job, home and college responsibilities since over 70% of the adult students were employed and working an average of 32 hours a week. Since 47% of the older students and 38% of the nondegree-seeking students had at least one dependent child, arranging child care can pose a major barrier to college attendance.

The availabilty of courses as well as the time the courses are offered are two large institutional barriers for adult students.

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Most of the adults surveyed favored a late afternoon or evening course. Failure to provide sufficient courses at these time slots could deter the enrollment of a significant number of adult students. Effective marketing and advertisement of available courses and their times can prevent institutional barriers of this kind. Other institutional barriers that may need attention are financial aid to adult students, access to university services (e.g., extended office hours of operation), institutional forms and "red tape", administrative and faculty attitudes toward adult students, and policies requiring greater student time and effort (e.g., required remedial courses for all students).

The present study indicated that adult students study more hours per week per credit hour than traditional college age students. This may mean that adult students are managing their time more efficiently, or it may mean that it takes them longer to comprehend the material. If it is the later case, poor study skills may serve as a dispositional barrier. Other types of dispositional barriers (Cross, 1981) include low self-esteem, fear of going back to college, boredom, and lack of energy and stamina.

This exploratory study barely scratches the surface of the many problems that adult students must face in attempting to enter college. It does help identify the potential and the challenges that adult students present for colleges and universities in the future. It is important to remember, however, that adult degree-seeking students and nondegree-seeking students differ not only from traditional students but also from one another.

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